



# ONSITE WASTEWATER TREATMENT REGULATORY PROGRAM

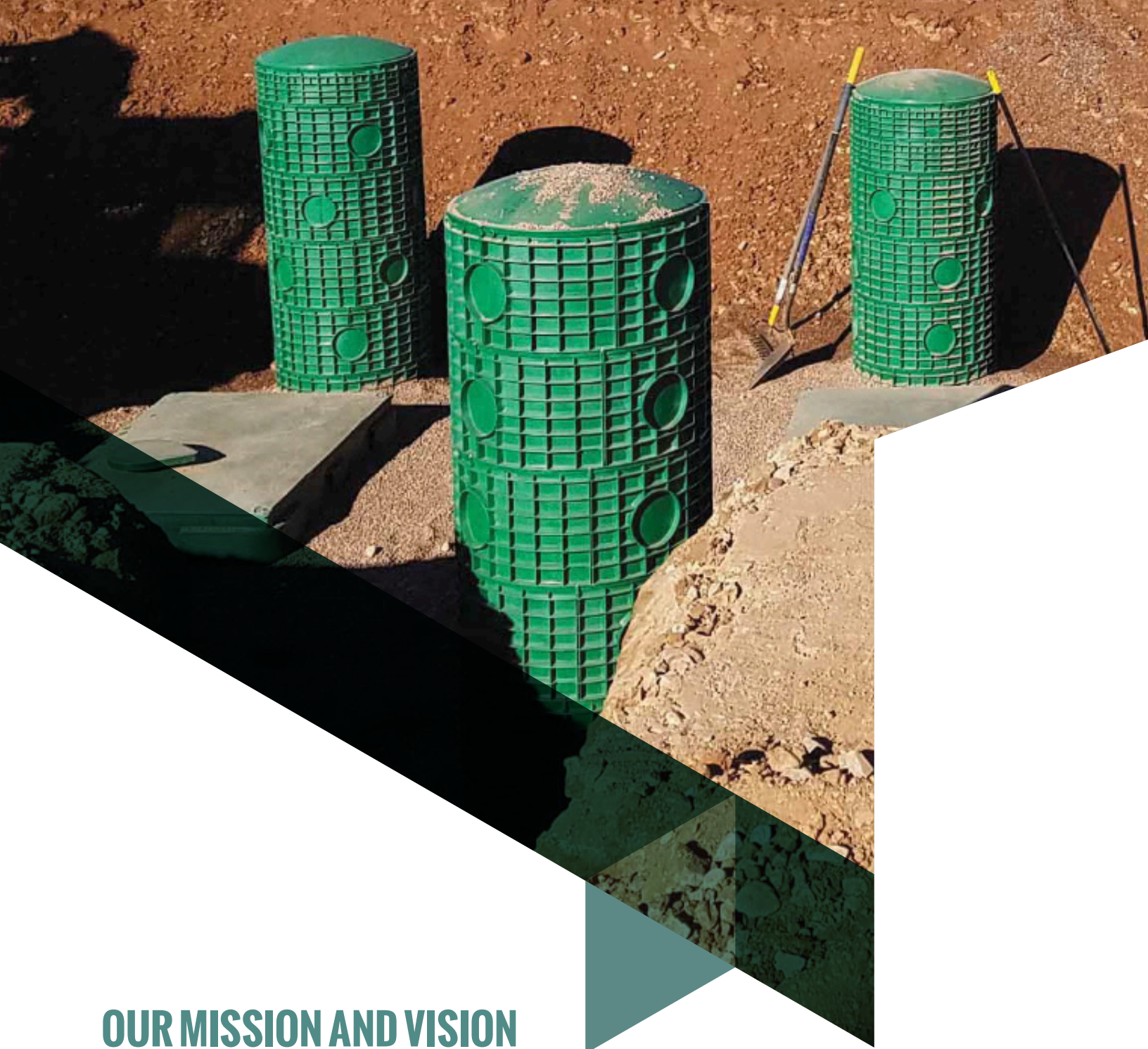
5-Year Plan: 2021-2025

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## OUR MISSION AND VISION

The Arizona Department of Environmental Quality's (ADEQ's) mission is to protect and enhance public health and the unique environment in Arizona. To achieve this, ADEQ administers the state's environmental laws and delegated federal programs to prevent pollution of the air, water and land, and to ensure cleanup when pollution occurs.

ADEQ's vision is to be the No. 1 state in the nation in:

- Balanced, leading edge environmental protection through
- Technical and operational excellence, and
- Radical simplicity for customers and staff.



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# PREFACE

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This plan is in reference to the On-site Wastewater Treatment Regulatory Program defined in Arizona Administrative Code (A.A.C.) Title 18, Chapter 9 and primarily delegated to Arizona Counties pursuant to Arizona Revised Statutes (A.R.S.) § 49-107. The Groundwater Protection Value Stream manages the program as part of the Arizona Department of Environmental Quality's (ADEQ's) Water Quality Division. "On-site wastewater treatment facility" means a conventional septic tank system or alternative system installed at a site to treat and dispose of wastewater, predominantly of human origin, generated at that site. An on-site wastewater treatment facility does not include a pre-fabricated, manufactured treatment works that typically uses an activated sludge unit process and has a design flow of 3,000 gallons per day or more. The current program is prescriptive based and includes both general and individual permits.

On-site wastewater systems (i.e., a septic system) treat wastewater for rural homes or businesses not connected to centralized sewer services. The most common type of system is a septic tank with a soil absorption trench. These rules serve two overarching purposes:

- a) To prevent nuisances (such as surfacing sewage) and the transmission of sewage or insect borne diseases, pursuant to A.R.S. § 49-104(B); and
- b) To control discharges of pollutants that may reasonably reach an aquifer, pursuant to A.R.S. §§ 49-241 through 49-252 and A.R.S. § 49-201(12).

Two dangerous but common pollutants from improperly installed or maintained on-site systems include (1) nitrates, which can decrease oxygen held in blood cells and cause what's commonly known as "blue baby syndrome," and (2) various pathogens, including viruses and bacterium, such as E. coli. On-site systems, if installed and maintained properly, protect groundwater and prevent nuisances caused by disposal of sewage. A more clear and updated rule would help to ensure that on-site systems are installed and maintained properly.

Current estimates indicate there will likely be more than 600,000 properties with on-site systems throughout the state by the end of this year. As of 2001, ADEQ estimated 400,000 lots in the state had either conventional or alternative on-site systems (which are likely now aging systems). Based on information in the 2005 rulemaking and on best estimates extrapolated from informal county surveys, just over 200,000 new systems have been permitted and installed since the 2001 rulemaking. Approximately 10,222 new systems statewide are permitted each year.

ADEQ estimates that the real estate market has benefited by \$22 billion in the last 20 years, as a result of the flexibility this rule provides. It is essential to ensure that the program will operate efficiently into the future to protect public health and the environment, protect purchased investment values, and allow for continued growth.

# EXECUTIVE SUMMARY

Over the next five years, the Arizona Department of Environmental Quality (ADEQ) Water Quality Division (WQD) will update existing rules, implement program improvements, enhance alignment between ADEQ and the delegated counties, and explore potential future state(s) for the on-site wastewater treatment program.

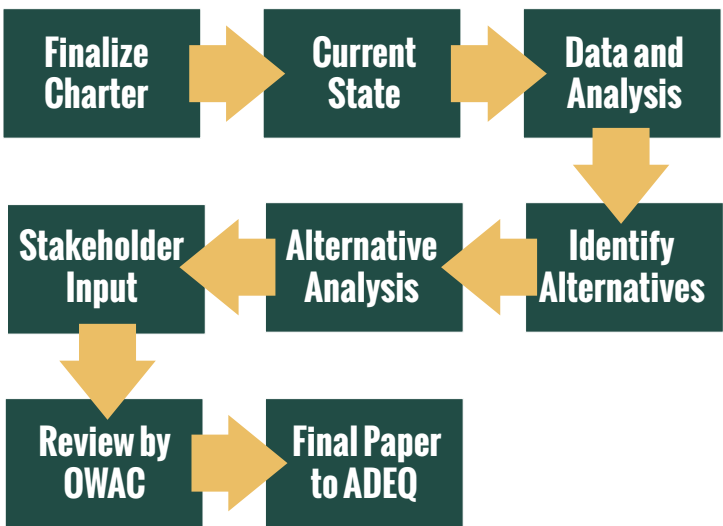
## Organizational Approach

As shown on the graphic below, ADEQ will form six technical work groups, consisting of volunteer members. ADEQ's existing On-site Wastewater Advisory Committee (OWAC) will review technical work group products and provide their additional feedback and recommendations to ADEQ. In addition, ADEQ's program team will continue to implement improvements currently underway.



## Technical Work Groups (TWGs)

Each TWG will be assigned an initial list of issues to discuss. ADEQ will appoint a volunteer chair and provide administrative and technical assistance. TWG will utilize a typical problem solving process to ensure timely completion of the assigned tasks. See Section 3, Work Group Tasks and Deliverables, for a complete list of group tasks.



## Milestone Schedule

The following is the initial schedule for the five tasks identified in this plan.

Task 1: Initial Rulemaking	Q1 2021 – Q1 2022
Task 2: Ongoing Program Improvements	Q1 2021 – Q4 2021
Task 3: Technical Workgroups	Q1 2021 – Q4 2023
Task 4: Additional Rulemaking (if needed)	2024
Task 5: Implementation and Evaluation	2025



# 1. INTRODUCTION

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The Arizona Department of Environmental Quality (ADEQ) Water Quality Division (WQD) committed to its stakeholders to improve the on-site wastewater treatment program, including the rules, procedures, and policies, and will better support counties' and customer needs. This 5-Year Plan will provide direction to ADEQ's WQD for the timely implementation of improvements to the on-site wastewater treatment program and fulfill ADEQ's commitment to its stakeholders. This document is the roadmap for fulfilling the goal of improving the on-site wastewater program.

## The Need for a 5-Year Plan

Since the last rulemaking in 2005, stakeholders and local regulators have continuously raised concerns regarding the on-site wastewater treatment program but competing priorities have prevented ADEQ from taking action to resolve these concerns. Stakeholders, including delegated county agencies, system designers and installers, permit applicants, and system manufacturers have again recently vocalized concerns, some of which include the following:

- Outdated scientific references
- Lack of flexibility in the rule to align with modern technologies
- Antiquated requirements that stifle technological innovation and hinder standard engineering practices
- Limited required monitoring and tracking, leading to a lack of data to make informed decisions
- Lack of clarity in the permitting and review processes
- Confusing processes to list approved proprietary products
- Improve program implementation
- Determination if current pollution control is adequate
- Need for fairness and transparency in evaluation of new technologies
- Lack of sufficient data and resources to achieve the statutory functions and duties of ADEQ

## Guiding Principles of the 5-Year Plan

ADEQ's intent is to collaborate with its customers and stakeholders to ensure the process for improvement will address the priority issues and be implemented in a timely manner. In pursuit of its mission to protect and enhance public health and the environment, ADEQ continuously strives to become the number one state in the nation delivering balanced, leading-edge environmental protection through technical and operational excellence and radical simplicity for customers and staff. Therefore, it is important to establish principles to guide this program. In 2018, ADEQ's On-site Wastewater Advisory Committee (OWAC) recommended ADEQ staff focus on the following guiding principles, which have been adopted as the guiding principles for this plan:

- Protect public health and the environment (ADEQ's mission)
- Encourage the development of new technologies
- Conduct on-going rule updates and revisions as needed to keep the program current
- Encourage the increased recycling and reuse of treated wastewater
- Encourage the expanded utilization of water conservation methods
- Continually review and improve the program to ensure excellent customer service
- Continually review and improve the program to ensure that efficiency and effectiveness measures are achieved

## Wastewater Disposal Advisory Group

ADEQ formed a Wastewater Disposal Advisory Group (WDAG) solely tasked with assisting ADEQ in forming a 5-Year Plan to improve the on-site wastewater treatment regulatory program. This 5-Year Plan is based on input from the WDAG. The group consisted of volunteer members from county health directors and staff, industry, drillers, consultants, equipment manufacturers, and other interest groups. An invitation to participate was widely distributed in May 2020 and the group held its first meeting in June 2020 and completed their work in December 2020. The group made draft recommendations to ADEQ regarding what issues ADEQ should concentrate on moving forward to improve the program and the implementation strategy.

## Administration of the 5-Year Plan

The ADEQ Groundwater Protection Value Stream Manager will be responsible for technical support and providing response to recommendations from the stakeholders and customers. A project manager will assist in tracking implementation of the schedule and a legal specialist will provide guidance on rule language and will be responsible for aggregating and modifying draft language into a formal rule package. The project manager will maintain a positive working relationship with OWAC and technical workgroup chairs. OWAC, as the designated agency advisory committee, will remain involved to provide input and feedback to ADEQ in its implementation of this plan. Members of WDAG will be offered membership on OWAC to provide continuity. ADEQ will improve OWAC operating procedures and provide additional support to facilitate efficient operation of OWAC and TWGs.

## Roles and Responsibilities

The following chart provides an overview of the roles and responsibilities of each party.

ADEQ	OWAC	TWGs
<ul style="list-style-type: none"><li>• Project leader</li><li>• Oversee OWAC and TWG process</li><li>• Assign work group tasks</li><li>• Review recommended actions, information, and draft language from stakeholders (OWAC, TWGs, and other stakeholders)</li><li>• Provide technical resources and staff to facilitate efficient operation of the OWAC and workgroups</li><li>• Final decision maker</li><li>• Ultimate policy and rule writer and owner</li><li>• Maintain program</li></ul>	<ul style="list-style-type: none"><li>• Recommend priority issues</li><li>• Assist to develop approach to resolve</li><li>• Forward draft recommendations to ADEQ</li><li>• Forward feedback on TWG material to ADEQ</li><li>• Provide feedback on ADEQ's implementation of the 5-Year Plan</li></ul>	<ul style="list-style-type: none"><li>• Identify further issues within assigned topics</li><li>• Data collection</li><li>• Peer research</li><li>• Alternative analysis and possible pathways</li><li>• Draft recommendations for OWAC and ADEQ to review based on charter requests</li></ul>

## Ongoing Implementation and Program Assessment

During the first quarter of 2021, ADEQ staff and OWAC members will collaborate on the development of performance metrics to be used to evaluate implementation of this plan. ADEQ staff will report on the metrics and progress at OWAC meetings. In addition, semi-annually or annually, OWAC and ADEQ staff will jointly evaluate the progress made to date, identify barriers to implementation, and recommend changes to the 5-Year Plan. Quarterly email updates will be sent to all stakeholders to ensure customers are up to date on the changes being made and the opportunities to provide input. In fall 2025, a formal evaluation of the current program will be conducted and ADEQ and OWAC will prepare a new plan as needed for post-2025 activities.

## 2. THE PLAN

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This 5-Year Plan consists of five tasks some of which will be implemented concurrently.

- Task 1: Initial Rulemaking
- Task 2: Ongoing Process Improvements
- Task 3: Technical Work Groups
- Task 4: Additional Rulemaking
- Task 5: Implementation and Evaluation

### Task 1: Initial Rulemaking

The goal of Task 1 is to complete rulemaking to make needed fixes to the existing rule as expeditiously as possible. The type of rule changes to be made in this phase are identified below.

- Clarifications (e.g., clarify seepage pit test depth requirements)
- Simple technical corrections (e.g., making sure rule is consistent in its rounding policy)
- Limited rule updates which include, as examples:
  - Outdated incorporations by reference
  - Potential performance measure updates (such as evaluating whether to use fecal vs. total coliform)
  - Explore if there are possible ways to permit new technologies under a Type 4 permit for which a current general permit does not technically exist, including a method for new technologies to be tested and studied (e.g., pilot projects)
- Possible clarification of the current process to ease permitting of new technologies

### Proposed Approach and Tentative Timeline

1. **January 2021:** Stakeholder Meeting (see Section 4: Stakeholder and Customer Engagement for more information)
2. **February 2021:** ADEQ and OWAC to review stakeholder input to:
  - Finalize guiding principles and priorities
  - Prepare list of issues which may be alleviated without rulemaking
  - Identify potential Phase 1 rule changes which would include limited modifications as listed above
3. **March – June 2021:** ADEQ to take action on readily known and practicable non-rulemaking process improvements (e.g., delegation management procedures or A312(G) processes)
4. **March 2021:** Legal specialist to create a strawman rule
5. **April 2021:** OWAC reviews the strawman document
  - ADEQ revises draft rule as needed
6. **Tentative May 2021:** Stakeholder meeting to review proposed changes to rule
  - Stakeholder comment period
7. **Tentative June – July 2021:** ADEQ incorporates comments in draft rule language and preamble
8. **Tentative August 2021:** OWAC reviews and provides input on final draft language
9. **Tentative 2021:** ADEQ begins formal rulemaking
  - Stakeholders advised of opportunities to participate in formal rulemaking led by the Governor's Regulatory Review Council (GRRRC)
10. **Tentative Mid-2022:** Effective Date



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## Task 2: Ongoing Process Improvements

The following are projects currently underway. ADEQ will provide OWAC with regular updates on the status of these activities.

### OWAC Improvements Completed January 2021

ADEQ staff will meet with OWAC leadership to update the operating procedures, create a webpage for group information, and increase membership to include current WDAG members. Since the current officers are 2 ½ years into their 2-year terms, OWAC and ADEQ will develop a plan for election of new leadership in January 2021.

### Complete Issue Resolutions Underway

ADEQ staff is currently working on several papers to provide clarity on issues related to the current rule. The draft papers were distributed for review and comment. It is the intent of ADEQ to finalize these papers and post on the website for future reference in Q1 2021.

### Ongoing Process Improvements

An initiative is currently underway to establish an electronic reporting process between the counties and ADEQ. Once data becomes available, ADEQ will collaborate with the counties on opportunities for streamlining record keeping and retention schedules. The team will also look for tools to implement for maintaining a database of permits issued and for storing design documentation and other relevant information for future reference.

### Complete New Delegation Agreements

ADEQ has committed to having revised language for the delegation agreements complete in early 2021 with the goal of having at least a portion of the agreements signed by end of June 2021. ADEQ developed a standard of work for conducting delegated agency performance reviews and will continue the reviews in 2021. ADEQ and the Arizona County Directors of Environmental Health Services Association (ACDESHA) will continue to work together on aligning the state and delegated programs.

### Environmental Impact of On-site Wastewater Treatment Systems in Arizona

ADEQ staff will consult with the state educational institutions to develop potential research program on the current environmental impact of on-site systems and develop a methodology for determining the impact of proposed program changes. Staff will consult with OWAC during development of the scope for this research program.

## Task 3: Technical Work Groups

Task 3 will involve more in depth research, discussion, and identification of potential alternatives on the issues, which will not be addressed during the initial rulemaking in Task 1. Both OWAC and the WDAG have identified issues, which may need research and/or resolution. See Section 3: Technical Work Groups for more information.

## Task 4: Additional Rulemaking

If the workgroups identify further rule changes, a second rulemaking is being considered in 2024.

## Task 5: Implementation and Evaluation

As new program elements are established, the program team will implement and evaluate to determine effectiveness of the changes.

# 3. TECHNICAL WORK GROUPS

## Work Group Charters

ADEQ will form the following technical work groups (TWGs) to assist in implementation of the 5-Year Plan.

1. PPL Process Work Group
2. Design/Permitting Work Group
3. Training and Certification Work Group
4. Operations and Maintenance Work Group
5. 1.09 Facilities
6. Ideal Future State Exploration Work Group

Each work group will have a charter specific to the group's scope of work. Each TWG charter will include the issues to be addressed by the group and a schedule for completion of their tasks. The initial lists were developed by WDAG during development of this plan and will be included in the charters to be posted online separately. The first five TWGs, on the list above, will recommend changes to the existing regulatory program. The Ideal Future State Exploration Work Group will focus on potential frameworks for a regulatory program with more flexibility and potential for treated water reuse.

During analysis of each issue, the work group will determine the appropriate pathway to resolve the issue. Not all issues need a rule change; some may require process or communication improvements. Possible pathways include:

- Simple rule modification
- Complex rule modification
- Providing additional information to permittees
- Additional training or education
- Providing repository of information
- Modification to a current form
- Modification of an ADEQ or county process
- New or revised substantive policy
- New standard of work for escalation and resolution of issues
- More complex issue needing data, research, and alternative analysis before rule or policy change

## Formation and Operation

Membership of each group will be based on the technical expertise needed to address group's scope of work. Beginning January 2021, ADEQ will follow the following process to form the TWGs:

1. Finalize charters for each work group with input from OWAC
2. Based on priorities, determine the start date and duration of each group
3. Establish a membership application process
4. Notify the broader stakeholder communities and public of the opportunities to volunteer
5. Allow 30 days for people to submit an application
6. ADEQ to compile applications received; select members based on technical expertise, availability, and geographic diversity; and appoint a chair
7. ADEQ may add people with specific expertise to work groups even if they did not participate in the application process
8. OWAC will review and provide input to ADEQ on proposed membership and chairs
9. ADEQ finalizes the selection of membership and notifies participants
10. ADEQ schedules first meeting of each group focusing on alignment with the charter and desired method for accomplishing their tasks
11. Chair will coordinate future meeting scheduling, agendas, notes, and action tracking with the ADEQ project manager

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## Tasks and Deliverable

TWGs will make recommendations according to their Charter. Recommendations will be made using the assumption the framework of the existing regulatory program remains intact. Each group will complete the following tasks and prepare a final paper:

- Review the charter and historical documents to revise the list of issues to be addressed by the group (if needed to ensure nothing is missed)
- Prioritize the issues to be addressed and make assignments as needed
- Conduct peer review of other States' programs
- Collect, review existing studies, and research
- Determine if new research is needed and create plan to obtain the research
- Review input from stakeholders/customers/counties
- Provide monthly updates to OWAC
- Prepare a paper which:
  - Evaluates current program and fully list, explain, and discuss the problems and identified gaps in the current program
  - Analysis and data to support why the issues discussed are in fact a problem for stakeholders, including the regulated public
  - Fully list, explain and discuss alternatives considered and the final recommendation to resolve the issue
  - Identify issues or opportunities that reflect a future state approach that requires significant research, such as those issues that may intersect with a more flexible future state approach to be analyzed in tandem by the Ideal Future State Exploration Work Group



## 4. STAKEHOLDER AND CUSTOMER ENGAGEMENT

At key milestones throughout the planning process, ADEQ will host stakeholder meetings to seek input from a diverse range of stakeholders. As needed, the team will make presentations to groups and organizations to seek their input. Until the restrictions related to Covid-19 are lifted, all meetings will be held virtually.

Stakeholders : Residential and commercial property owners, wastewater systems designers and manufacturers, pumpers and haulers, sanitarians, local regulatory agencies or health departments (especially in those counties with delegated authorities under these rules), wastewater system engineers, contractors and developers (typically in rural or suburban areas), and real estate agents.

### Engagement Plan

Milestone	Goal (s)	Action	Schedule
<b>Build Stakeholder Database</b>	<p>Increase the number and diversity of stakeholders on the eGov Delivery list</p> <p>Inform of intent to begin updating program</p> <p>Call to Action: Subscribe to Email List</p>	<p>Send email to the following groups with a request to send information to all members of the organization</p> <ul style="list-style-type: none"> <li>• AzOWRA</li> <li>• ACDESHA</li> <li>• Arizona Water Works</li> <li>• Arizona Sanitarians' Council</li> <li>• Arizona Association of Realtors</li> <li>• Local Realtor Associations (15 in Arizona - many in rural areas)</li> <li>• Home Builders Association of Central Arizona</li> <li>• Southern Arizona Home Builders Association</li> <li>• Arizona Contractors Association</li> <li>• Northern Arizona Building Association</li> <li>• AZ Building Officials</li> <li>• AZ Restaurant Assn</li> <li>• Az Title Officers Assn</li> <li>• Az Bankers Assn</li> <li>• ROC</li> </ul>	January 2021
<b>Create Webpage</b>	To provide a one stop location on the website to receive information about the 5-Year Plan, rulemaking and other improvements related to the on-site program	Meet with Communications to develop a plan for posting information	Q1 2021

*Chart continued on next page >*

## Engagement Plan Cont.

Milestone	Goal (s)	Action	Schedule
<b>Task 1 Initial Stakeholder Meeting on Rulemaking</b>	<p>Inform broader stakeholder community about the 5-Year Plan and opening of informal rulemaking</p> <p>Identify additional issues to be addressed during rulemaking</p> <p>Seek input on the guiding principles and values</p> <p>Announce the formation of work groups and how to apply</p>	<p>Schedule meeting within 2 weeks of receipt of exemption memo approval</p> <p>Establish online tool to collect input from people unable to attend meeting</p> <p>If possible, meeting notification sent 2 weeks prior to meeting</p>	<p>Within 60 days of receipt of exemption memo approval</p>
<b>Organization and Small Group Meetings</b>	<p>To provide alternative methods of sharing information with stakeholders</p>	<p>Offer to make presentation during existing meetings of stakeholder groups</p> <p>These meetings may be held in rural communities throughout the state at the invitation of the group</p>	Ongoing
<b>Stakeholder Meeting on Draft Rule Language</b>	<p>To seek feedback on the proposed rule changes</p>	<p>Post draft rule for review by stakeholders</p> <p>Establish online tool for seeking input</p> <p>Schedule meeting and provide 2 weeks notice to stakeholder to allow review time of draft rule</p> <p>Allow 2 weeks of additional input after the meeting</p>	<p>Tentative May 2021</p>
<b>Quarterly Updates to Stakeholders</b>	<p>To provide ongoing information on the status of the 5-Year Plan implementation</p> <p>Announce members of the TWGs and a brief synopsis of the group's status</p>	<p>OWAC and Program team will develop a method for tracking progress</p> <p>Beginning in Q2 2021, the program team will distribute the information to the email subscribers</p>	<p>April 2021 and Ongoing</p>
<b>Stakeholder Meetings as Needed</b>	<p>To seek broader stakeholder input on TWG recommendations</p>	<p>Meetings may be held as needed to seek input on proposed rule changes and TWG recommendations</p>	Ongoing

# 5. MILESTONE SCHEDULE

The following schedule is based on the information known as of January 2021. Dates are subject to change. The schedule will be maintained by the project manager and updated monthly.

		2021				2022				2023				2024				2025			
	Dec	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
WDAG Review of Final Plan																					
Initial Stakeholder Meeting																					
Stakeholder Meeting on Draft Rule																					
Quarterly Updates																					
Workgroup Formation																					
Task 1: Rulemaking																					
Task 2: Ongoing Improvements																					
Task 3: Technical Work Groups																					
PPL Process																					
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**January, 2021**  
EQR-21-01